

Exhibit 1.

Qualifications of expert witness, Richard C. Levine:

Education: Bachelor, Master and Doctoral level in Electrical Engineering granted by the Massachusetts Institute of Technology.

Employed in the field of electrical engineering for 35 years, most of that time in the areas of telecommunication. Held technical positions at AT&T Bell Laboratories, Bell Northern Research (BNR- a Northern Telecom company), and several other less well-known telecommunications companies. Left BNR in 1990 to work as an independent consultant. Contracted to work as a consultant for a number of telecommunications firms including BNR, Comcast, Fleet Call (Nextel), GTE, LCC, Mobile Systems International, Northern Telecom, Pulsar International S.A.de C V., ReadyCom, Telecom Solutions, Inc., Teleconsult Inc, Teradyne and several cellular carriers in particular the European F1 (France) and German (D2) GSM systems. Adjunct Professor of Electrical Engineering at Southern Methodist University since 1984, specializing in telecommunications.

Experience, both theoretical and practical and background in the US cellular system, having worked on that technology intermittently since 1979.

Licenses: professional engineer registration currently in Texas and originally in New Jersey by examination and experience qualifications. FCC First Class (commercial) Radiotelephone license and Amateur Extra Class radio license (call AI8N)

Statement on special qualifications regarding cellular radio systems: From approximately 1987 until 1992 cellular systems occupied almost all of my professional activities. Within BNR I was frequently called on, due to my dual expertise in both switching and radio technologies, to aid in solving particularly difficult technical problems with new installations and modifications of the Northern Telecom cellular switching systems. My heavy involvement with US cellular and other cellular and PCS technologies continues up to the present, and most of my consulting activities in the last 5 years have involved the design, evaluation, troubleshooting, technical staff training and installation of cellular and related PCS systems using US cellular technology standards and several other technology standards used in other services and in similar services in other countries as well. I was a major contributor to the design of the Northern Telecom DMTX dual-mode digital cellular system. I was a representative to the TIA TR45 standards committee from BNR and Northern Telecom,

serving as the chairman of the signaling working group which developed all call processing signals for dual-mode (TDMA-analog) mobile-base station compatibility standard IS-54. I was also the founding chair of the so-called Ad-Hoc Authentication Group (AHAG) of TR.45 which developed the new authentication standard described in document IS-54-Rev.B, and its appendix A. This same authentication standard was subsequently adopted for IS-95 (CDMA) and for use with all other technologies including analog cellular in the US 800 MHz band cellular service. Subsequent to that publication in 1992, I was succeeded as chair of the AHAG by Alan Angus (now at JRC) and then Les Owens (at GTE laboratories), the current chair. Although I do not regularly attend the standards committee since completion of the authentication documents, I maintain my paid membership and follow the technical activities of the standards committee and parallel activities of foreign standards groups as well. I was an invited keynote and tutorial speaker, and participant in November 1993 at the Joint Experts Meeting in Phoenix Arizona. on the subject of authentication and anti-fraud for US PCS (1.9 GHz) systems.

Exhibit 2.

Materials Reviewed:

- * 1. FCC Report and Order in CC Docket No. 92-115, September 9, 1994 [cited as Report and Order Sept. '94]
- 2. All comments and reply comment cited by the FCC in paragraphs 54-63 of the Report and Order, including:
 - a. PacTel Comments filed Oct. 5, 1992
 - b. Cellular Telecommunications Industry Association Comments filed Oct. 5, 1992
 - c. BellSouth Corp. and BellSouth Enterprises, Inc. Comments filed Oct. 5, 1992
 - d. Southwestern Bell Mobile Systems Comments filed Oct. 5, 1992
 - e. GTE Mobilenet, Inc. Comments filed Oct. 5, 1992
 - f. NYNEX Mobile Communications Company Comments filed Oct. 5, 1992
 - g. U.S. West New Vector Group, Inc. Comments filed Oct. 5, 1992
 - h. C-Two-Plus Technology, Inc. Comments filed April 20, 1993
 - i. New Par Comments filed Oct. 5, 1992
 - *j. Ericsson Corporation Reply Comments filed Nov. 5, 1992 [cited as Ericsson, Reply, Nov. '92]
 - k. Motorola, Inc. Reply Comments filed Nov. 5, 1992
- * 3. Motion for Stay filed December 19, 1994 by the Mobile a Personal Communications 800 Section of the Telecommunications Industry Association [cited as TIA Stay Dec. '94]
- * 4. Petition for Clarification and Reconsideration filed December 19, 1994 by the Mobile a Personal Communications 800 Section of the Telecommunications Industry Association [cited as TIA Clarification Dec. '94]
- * 5. McCaw Cellular Communications, Inc. Petition for Reconsideration and Clarification filed December 19, 1994 [cited as McCaw Clarification Dec. '94]
- * 6. C-Two-Plus Technology, Inc. Petition for Reconsideration filed December 19, 1994. [cited as C2+ Reconsideration Dec. '94]
- * 7. Ericsson Corporation Petition for Reconsideration, filed December 19, 1994 [cited as Ericsson Petition Dec '94]
- 8. MTC Communications Petition for Reconsideration, filed December 19, 1994
- * 9. Opposition/Comments to Petitions for Reconsideration of the Cellular Telecommunications Industry Association, filed January 20, 1995 [cited as CTIA Opposition Jan. '95]

10. FCC Order dated Jan. 10, 1995 denying TIA Motion for Stay
- *11. Comments of McCaw Cellular Communications, Inc. on Petitions for Reconsideration and Clarification filed January 20, 1995 [cited as McCaw Comments Jan. '95]
12. C-Two-Plus Technology, Inc. Partial Opposition to Petition for Reconsideration of McCaw Cellular Communications, Inc. filed Jan. 20, 1995
13. C-Two-Plus Technology, Inc. Comments on Petition for Reconsideration filed by the Ericsson Corporation and Petition for Clarification and Reconsideration filed by TIA filed Jan. 20, 1995
14. Matsushita Communications Industrial Corporation of America Comments in Support of Petitions for Reconsideration filed Jan. 20, 1995
15. C-Two-Plus Technology, Inc. Reply to Comments of McCaw Cellular Communications on Petitions for Reconsideration filed Feb. 2, 1995
16. C-Two-Plus Technology, Inc. Reply to CTIA Opposition/Comments to Petitions for Reconsideration filed Feb. 2, 1995
17. TIA and CTIA Joint Reply and Request for Extension of Time filed Feb. 2, 1995
18. McCaw Cellular Communications, Inc. Reply Comments filed Feb. 2, 1995
19. Ericsson Corporation Reply Comments filed Feb. 2, 1995
20. MTC Communications Reply to TIA and McCaw filed Feb. 2, 1995
21. Nokia Mobile Phones, Inc. Reply Comments filed Feb. 16, 1995
22. Small Business Administration Comments filed Feb. 14, 1995
23. C-Two-Plus Technology, Inc. Comments on TIA/CTIA Motion for Extension, filed Feb. 15, 1993
24. FCC Order dated March 2, 1995
25. Joint Comments of Cellular Carriers in response to Joint Reply, filed April 3, 1995
26. C-Two-Plus Technology, Inc. Comments on Joint Reply, filed April 4, 1995
- *27. Response to Replies and Comments to Joint Reply filed April 19, 1995 by the Mobile and Personal Communications Division of the Telecommunications Industry Association ("TIA") [cited as TIA Response April '95]
28. C-Two-Plus Technology, Inc. Comments on Motion for Acceptance of Response, filed May 3, 1995